ITS AV ROOM DESIGNS
Flinders University

Prepared For University School and Faculties

Prepared By	Information Technology Services, Infrastructure, Audio Visual Services
Revision	v12
Date Prepared	22/02/2016
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Version Revision History:

Version	Details	Date	Author
1	▪ Initial document drafted	25/10/2013	Doni Bruno
2	▪ Updated to suit sign off approach ▪ Adjusted overall scope	10/12/2013	Doni Bruno Chris Hutton
3	▪ Inclusion of management learning systems and teaching lab specifications	20/12/2014	Doni Bruno
4	▪ Inclusion of basic / large teaching and telepresence spaces	13/02/2014	Doni Bruno Chris Hutton
5	▪ Inclusion of Flip Learning Recording Studio ▪ Inclusion of (Mo-CoW) Mobile Computing specifications ▪ Revised Cisco conferencing hardware and pricing ▪ All spaces with control include IP monitoring of the in room control system ▪ Inclusion of UPS in the Major Theatres ▪ Inclusion of optional under carpet cable management. ▪ Included 12 Month Onsite Maintenance on Major Theatres ▪ Included estimate for mains power and installed network ▪ Laser projectors to be standard across all spaces apart from ultra short throw projects on smartboards	01/05/2015	Doni Bruno Chris Hutton
6	▪ Include wireless presentation option for MooCows (software based)	22/02/2016	Doni Bruno

Contents

Flinders University Audio Visual Room Standards

The purpose of this document is to define the Flinders University IT Audio Visual standards. This publication details the physical requirements for the audio visual equipment to be used in Lecture Theatres, Collaborative Teaching Rooms, Meeting Rooms, Videoconference Rooms, Teaching Labs and Simulated Learning Units, Flipped Classrooms and Mobile Computers on Wheels.

The document is reviewed and updated yearly and encompasses changes in audio visual technology and teaching practices identified in broader Higher Education. In addition various stakeholders including Centre for Innovation in Learning and Teaching, Buildings and Property and the University Timetabling team are consulted as part of this review.

These guidelines are used as the standard for the design and construction of Audio Visual facilities. Where a proposed design deviates from the standards, consultation during the design stage, prior to the commencement of any construction works, with Flinders ITS (Information Technology Services) staff must be undertaken and ITS approval given to proceed with a non-standard design. Considerations taken into account for non-standard implementations include value to stakeholders, reputational risk, significant operation disruption or strategic importance.

General AV Definitions

Control System
Flinders University has a standardised Crestron or Extron Control system environment across all the campuses and use Crestron Digital Media, Extron DTP or Extron XTP for switching and distributing audio and video throughout the spaces. Crestron Fusion or xPanels are implemented for remote monitoring and management for most systems.

Video Transport and Switching
HDMI is the common interfaces for all sources devices such as PCs, blu-ray players, laptops and videoconferencing hardware. Any signal conversion to alternative digital video formats and connector types, such as Thunderbolts, DVI and display port, will need to be provided by the user. In some instances, the teaching point will continued to support a VGA and the associated audio for laptops and other peripherals; the video signal will be digitally converted and transported to the display device via HDMI.   VGA will not be installed as a standard from the beginning of 2016 unless specifically requested.

Hearing Augmentation Systems

The hearing assistance system used at Flinders University is an under floor induction loop with a low spill design to ensure there is no audio audible in adjacent spaces. Where there is danger of spill into adjacent rooms, above or below, an ultra-low spill phased array loop shall be provided. In the situation an under floor solution is not possible a Williams Sound IR solution will be installed. The induction loops will be designed to cover 90% of the seated audience area in the room, beginning at the front of the room. After installation a listening test shall be undertaken to confirm that the audio quality is acceptable to the University and will meet the national code.

Audio and Video Conferencing Systems

Flinders University supports Cisco audio and video conferencing solutions with current hardware being a Cisco SX series with dual output display. The connectivity of the video conferencing system will be via IP and will utilise a Flinders network gateway to communicate to ISDN based systems and a bridge for multipoint conferencing.

Web Based Audio and Video Conferencing

Web based conferencing solutions (i.e. Cisco Jabber, Cisco WebEx, Skype, etc.) can be made available throughout the small rooms and executive office. Space supporting a web based conferencing will maintain an LCD TV, USB webcam and a USB conference microphone with integrated speaker.   The audio re-enforcement in the room will be via the USB microphone or additional speakers.
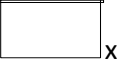
Lecture Record

All major teaching spaces have a lecture record system allowing for the capture and recording the lecture via a camera in the room and one switchable video source (PC or document camera) controllable remotely or from within the room. The lecture recording system provides a live video stream for real time viewing or watched at the participant's convenience on demand.

Control System Lighting

The lighting and lighting control systems of all teaching spaces is generally individually designed based on room layout and is reviewed during any installation process. Were applicable, all room lighting control will be controlled via a Creston panel and have lighting states suitable for individual presentations, classroom participation and playback of video content.

AV Equipment Legend

Elevation	Floor Plan	Description
		Flat Panel Display (such as an LCD monitor) S" Denotes size in inches C denotes height in mm
		Pan Tilt Zoom Camera x denotes height
C x	C	IP Monitoring Camera
	C	USB Web Cam
		Desk Mount Touch Screen (to control AV system)
x		AV Input Plate
x		Wall Mounted Control Touch Screen
	x	Desk Boundary Microphone x denotes c=ceiling, t=table
		USB Microphone
		Table Box
		Surface Mounted Speaker
		Flush Ceiling/Wall Speaker
		Desktop Flat Panel Display (such as a desktop PC monitor)
		Projector & Mount
x	x	Motorised Projection Screen x denotes height
	t	Document Camera t denotes type

Audio Visual Room Types

Major Lecture Theatre

A Major Lecture Theatre is designed as a large teaching space and is considered a premium installation and venue for the University. Major lecture theatres generally have a tiered seated arrangement for several hundred students. These spaces include large format projection screens situated at the front of the room, a fixed lectern that contain all media sources a lecturer would use for presentations, Flinders University PC, document camera, blu-ray player and a connection for BYOD devices, such as a laptop, via a HDMI connection. In addition to the main projected images, a large format display is included, often called a comfort or fold back monitor, for the lecturer to see the projected content without the need to turn around and face the larger screens while presenting.

Often large format speakers are designed to work within the space, with sound re-enforcement offered by a microphones situated at the lectern, a hand held microphone for audience questions and a lapel microphone for roaming or additional presenters. Hearing augmentation is provided via a hearing loop or RF induction for hearing impaired students – in line with University policy.

The entire system is controlled via a Crestron control system with a Crestron touch screen located on the lectern that is used to turn the AV system on/off, switch the video sources from the lectern, such as the in-built PC, document camera, laptop, etc., to the projector screens. The space will be setup for Lecture Record also allowing the lecture to be streamed live or played on demand. The Crestron control system and touch panel is monitored remotely by ITS and a small camera is installed in the room enabling ITS support staff to visually support the teaching space.

When installing audio visual in a Major Lecture Theatres, special considerations need to be made in relation to the room audio, room acoustics and lighting for the presentation and audience spaces. In some situations an acoustic and lighting engineer may need to be engaged to help draft potential structural requirements for the space. A secure location will be provided for placement of the AV equipment, which is generally located in a full size IT rack within a lockable room separate to the main teaching space.

The standard Major Lecture Theatre will provide the following functionality and audio visual capabilities:
- Large format dual widescreen projectors and screens
- Basic wireless screen sharing capabilities
- A comprehensive lectern joinery with various devices for lecturer interaction,
- Suitable microphones, speakers and hearing augmentation for the hearing impaired
- Lecture recording and streaming
- Ability to connect additional audio and video devices I.e. cameras for additional expansion in/out of the system

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)
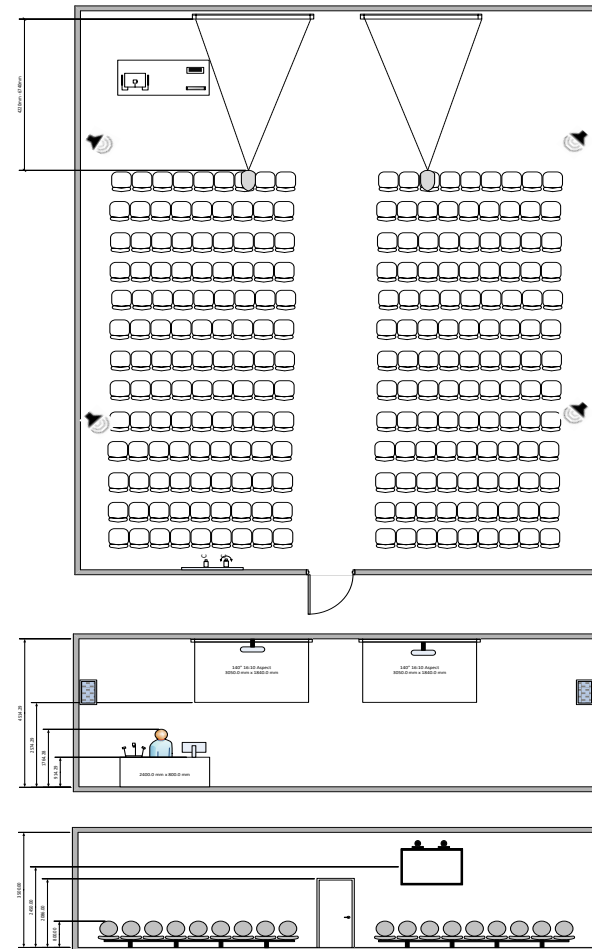
Major Lecture Theatre Options

Whiteboard Options

Mobile whiteboard for additional writing surfaces within the space and can be easily moved. $ TBA

Fixed whiteboard attached to a suitable wall within the space – generally next to or near the main projection surface. $ TBA

Please note: There is the possibility the whiteboard will not be captured by the lecture recording system.

Executive Lectern

Mobile lectern to provide the presenter with an additional teaching position $ TBA

Additional Microphones For Panel Style Discussions

Panel discussion maybe setup and have the ability to record the voices of the panel via additional table mounted microphones.

A maximum of 4x wired boundary microphones $ TBA

A maximum of 4x wireless boundary style microphones $ TBA

Additional Wireless Microphones

An additional lapel microphone and an additional handheld microphone in the room for additional presenter and audience participation $ TBA

Ceiling Mounted Pan/Tilt/Zoom Camera

A ceiling mounted camera will allow the presenter to control a camera mounted to ceiling above the teaching area for additional video re-enforcement of activities which $ TBA

occur across the presentation area such as the teaching bench. Control of the camera will be from the main control touch panel located at teaching bench.

Interactive Technologies

Inclusion of a Smart interactive flat panel display that will provide the ability to present from a laptop/PC. In addition there is the ability to annotate

on the display via an attached PC in the room and then save the documents or have the content displayed through the lecture capture system.

Smart Interactive Technology includes the provision for the:

- Interactive Flat panel with an attached PC, wireless keyboard/mouse
- Pre- installed Smart interactive software which is inclusive of setup, configuration and Basic User Training

A interactive 65" flat panel LCD display installed on the wall $ TBA

Advanced User Training for interactive displays (pricing is based on participant numbers) $ TBA

AUTHORISATION					
Total Price (With Options)				$	(Ex GST)
Campus:		Precinct:		Building:	Room Number:
Requested By:					Date:
Authorised By:					
Signature:					Date:
Authorised By (ITS):					
Signature:					Date:

Pricing as of 01/10/15   All pricing is Exclusive of GST

Major Tele Theatre

A Major Tele Theatre is designed as a large teaching space specialising in utilising video conferencing technology to allow teaching across multiple sites with interaction from audiences and presenters. It is considered to be a premium video conference space across the University for large groups. Generally desks and chairs are arranged in a standard classroom arrangement with slight tiering of the seats for tens to several hundred students. These spaces include two large format projectors or flat panel displays situated at the front of the space to represent the different sites and display content during video conference sessions. Like a major lecture theatre, the space contains a fixed lectern with all media sources a lecturer would use for presentations including a PC, document camera, blu-ray/DVD player and a connection for a BYOD device such as a laptop. Due to the nature of student collaboration in these spaces, large comfort or fold back video monitors are installed to enable clear viewing of all content being presented during the presentation or video conference.

A speaker system is designed and installed to offer effective sound reinforcement with minimal disruption to the users of the space. Like the major lecture theatres voice reinforcement is offered by a wired microphone on the lectern, a wireless lapel microphone for a presenter and roaming wireless hand held microphone for audience questions or additional presenters. In some instances, optional microphones are placed within the audience, either on the desk or suspended from the ceiling, for additional student collaboration. Hearing augmentation is provided via a RF under carpet hearing induction loop for hearing impaired students – in line with University policy.

The entire system is controlled via a Crestron control system with a Crestron touch screen located on the lectern that is used to turn the AV system on/off, switch the video sources from the lectern, such as the in-built PC, document camera, laptop, etc., to the projector screens. The space will be setup for Lecture Record also allowing the lecture to be streamed live or played on demand. The Crestron control system and touch panel is monitored remotely by ITS and a small camera is installed in the room enabling ITS support staff to visually support the teaching space.

When installing audio visual in a space such as this, considerations need to be made in relation to the room audio acoustics and lighting for the presentation and audience spaces. In some situations an acoustic and lighting engineer may need to be engaged to help draft potential structural requirements for the space. A secure location will be provided for placement of the AV equipment, which is generally located in a full size IT rack within a lockable room separate to the main teaching space.

The Major Tele Lecture Theatre will provide the following functionality and audio visual capabilities:
- Large format dual widescreen projectors and screens
- A Cisco video conference integration unit including two cameras
- A comprehensive lectern including joinery, PC, document camera, Blu-ray/DVD devices interaction
- Basic screen sharing capabilities
- Suitable microphones, speakers and hearing augmentation for the hearing impaired
- Lecture recording and streaming
- Ability to connect additional audio and video devices I.e. cameras for additional expansion in/out of the system

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)
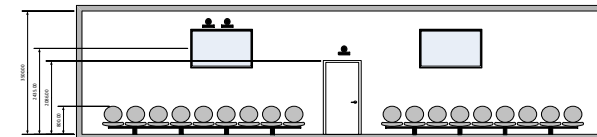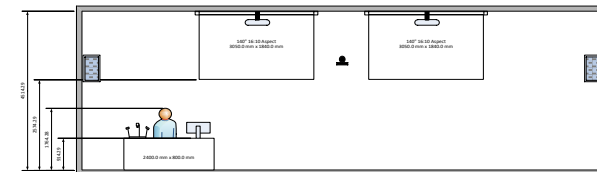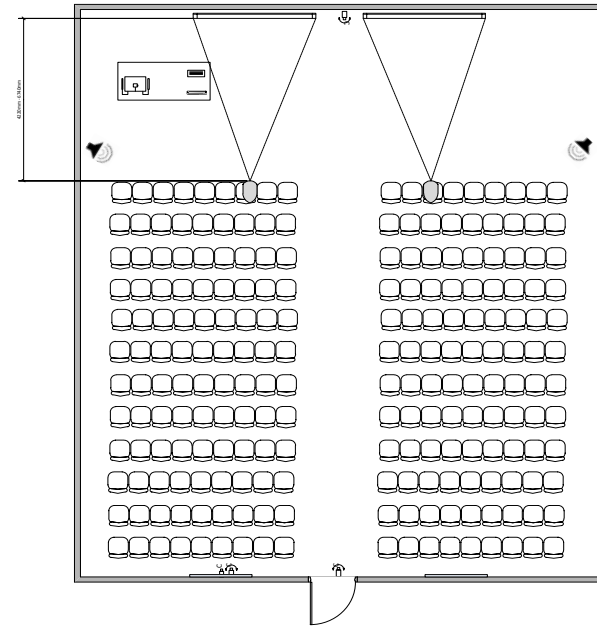
Major Tele Theatre - Options	$ Ex GST
Whiteboard Options	
Mobile whiteboard for additional writing surfaces within the space and can be easily moved.	$ TBA
Fixed whiteboard attached to a suitable wall within the space – generally next to or near the main projection surface.	$ TBA
Please note: There is the possibility the whiteboard will not be captured by the lecture recording system.	
Executive Lectern	
Mobile lectern to provide the presenter with an additional teaching position with assistance of a small mobile lectern with laptop and microphone connectivity	$ TBA
Additional Microphones For Panel Style Discussions	
Panel discussion maybe setup and have the ability to record the voices of the panel via additional table mounted microphones.	
A maximum of 4x wired boundary microphones	$ TBA
A maximum of 4x wireless boundary style microphones	$ TBA
Additional Wireless Microphones	
An additional lapel microphone and an additional handheld microphone in the room for additional presenter and audience participation	$ TBA
Ceiling Mounted Pan/Tilt/Zoom Camera	
A ceiling mounted camera will allow the presenter to control a camera mounted to ceiling above the teaching area for additional video re-enforcement of activities which occur around the floor area of the teaching bench. Control of the camera will be from the main control touch panel located at teaching bench.	$ TBA
Interactive Technologies	
Inclusion of a Smart interactive flat panel display that will provide the ability to present from a laptop/PC. In addition there is the ability to annotate on the display via an attached PC in the room and then save the documents or have the content displayed through the lecture capture system.	
Smart Interactive Technology includes the provision for the:	
• Interactive Flat panel with an attached PC, wireless keyboard/mouse	
• Pre- installed Smart interactive software which is inclusive of setup, configuration and Basic User Training	
A interactive 65" flat panel LCD display installed on the wall	$ TBA
Advanced User Training for interactive displays (pricing is based on participant numbers)	$ TBA

AUTHORISATION					
Total Price (With Options)				$	(Ex GST)
Campus:		Precinct:		Building:	Room Number:
Requested By:					Date:
Authorised By:					
Signature:					Date:
Authorised By (ITS):					
Signature:					Date:

Pricing as of 01/10/15

All pricing is Exclusive of GST

Large Collaborative Teaching Room

A Large Collaborative Teaching room is designed for tutorial classrooms for up to sixty people in either a standard rowed seated environment or in collaborative table environment. Like the major lecture theatres, these spaces share a similarity with the lectern position and choice of technology available for the lecturer to utilise for presentations such as a desktop PC, laptop connectivity and blu-ray player. Consideration needs to be given to the type of interactive technology based on the room size and configuration and specific joinery in relation to the air ventilation of the audio visual equipment. Both aspects of which can be confirmed with ITS during the design and installation.

Discrete flush mount ceiling or wall speakers are installed and are integrated into a hearing augmentation system for hearing impaired students, reinforced through a wireless lapel microphone system complemented with a hand held microphone for audience questions and answers.

The entire system is controlled via a touch panel located on the lectern which is used to turn the system on/off and switch the display between the lectern sources such as the in-built PC and blu-ray player. Depending on a decision determined by the school, there is the option to upgrade these spaces for lecture record which maybe streamed live or played on demand. The touch panel is monitored remotely by ITS and a small camera is installed to visually review the teaching space.

The collaborative teaching room will provide the following functionality and audio visual capabilities:
- Large format interactive whiteboard/projector or LCD
- A wall mounted whiteboard mounted alongside the IWB
- A comprehensive lectern with various devices for lecturer interaction
- A basic document camera for presentation
- Suitable speakers, microphones and hearing augmentation for audio reinforcement in the room
- Optional for lecture recording and streaming if required

Estimated Price$ TBA
(Includes Estimated Power Data $ TBA)
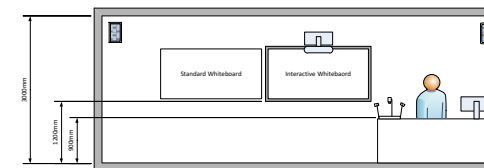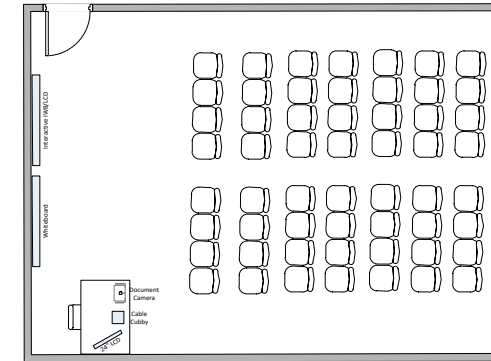
Large Collaborative Teaching Room - Options

Replace Interactive Projector/LCD with a Standard Projector and Screen

Remove the interactive whiteboard and replace with a standard projector	$ TBA

Lecture Record

The ability to record lectures and streaming capabilities	$ TBA

Room Linking

The ability to link this spaces audio visual with another like and adjoining space	$ TBA

Interactive Technologies

Advanced User Training for interactive displays (based on participant numbers)	$ TBA

AUTHORISATION

Total Price (With Options)		$	Ex GST
Campus:		Precinct:	
Building:		Room Number:	
Requested By:		Date:	
Authorised By:			
Signature:		Date:	
Authorised By			
Signature:		Date:	
Signature:		Date:	

Pricing as of 01/10/15

All pricing is Exclusive of GST

Advanced Collaborative Teaching Room

An Advanced Collaborative Teaching Room is designed for tutorial type classrooms for up to sixty people in a seated, table environment to work collaboratively using PC based technologies such as screen sharing and document manipulation.

Like the major lecture theatres, these spaces share a similarity with the lectern position and choice of technology available for the lecturer to utilise for presentations, a desktop PC, laptop connectivity and blu-ray player. Consideration needs to be given to the type of interactive technology based on the room size and configuration and specific joinery in relation to the air ventilation of the audio visual equipment. Both aspects of which can be confirmed with ITS during the design and installation.

The advanced collaborative teaching spaces differ from a collaborative space in the overall design of the table layouts and the selection of technology to drive the collaborative interaction. Deciding what software and hardware solution to choose should be discussed with ITS prior to making a decision as the technology is advancing rapidly and needs to be evaluated on a case-by-case basis.

Audio re-enforcement in the room will be provided by both a pair of wall or ceiling speakers and a hearing augmentation system for those with a hearing impairment. The audio re-enforcement in the room will be provided by the selected AV source device and the wireless hand held and lapel microphones.

The entire system is controlled via a touch panel located on the lectern which is used to turn the system on/off and switch displays between the lectern sources such as the in-built PC and blu-ray player. There is the option to upgrade these spaces for lecture record which maybe streamed live or played on demand. The touch panel is monitored remotely by ITS and a small camera is installed to visually review the teaching space.

The advanced collaborative teaching room will provide the following functionality and audio visual capabilities:
Large format interactive whiteboard or similar projection
- A comprehensive lectern with various devices for lecturer interaction
- Suitable speakers and microphones, with technology for hearing impaired
- A basic document camera for presentation
- An advanced collaborative software and hardware solution
- Detailed and well-designed seating and table solutions

$ Costed by ITS at time of Install
(Includes Estimated Power Data $TBA)
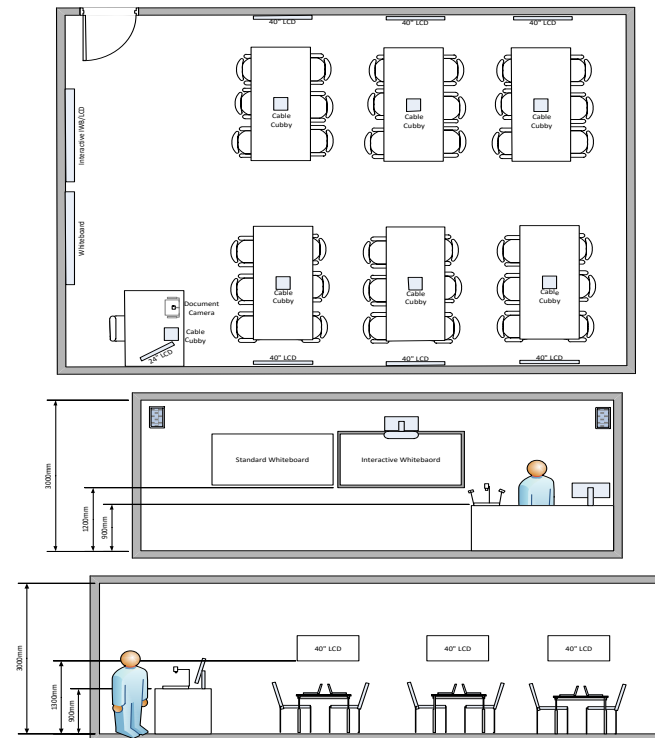
OPTIONS		AUTHORISATION			
Room Linking		**Total Price (With Options)**		**$**	**Ex GST**
The ability to link this spaces audio visual with another like and adjoining space $ On Request		Campus:		Precinct:	
		Building:		Room Number:	
		Requested By:		Date:	
		Authorised By:			
		Signature:		Date:	
		Authorised By			
		Signature:		Date:	

Teaching Laboratory

A teaching lab is primarily designed as a teaching space focused on practical delivery of content from small to large class sizes. Generally these spaces are designed with lab benches that contain facilities such as power, gas or water with the audio visual requirements needing to be designed around these main functions.

Labs may contain multiple teaching points situated at key tables or benches around the space for presenters or students to connect and display their own devices (BYOD), generally to large flat panel displays. In some instances, discrete flush mount ceiling or wall speakers are installed for reinforcement of the content being displayed on the displays.
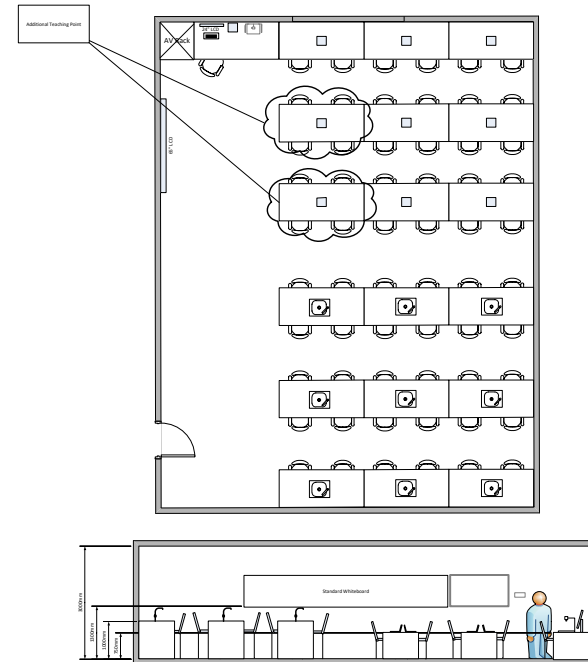
The entire system is controlled via a touch button panel which is positioned on the wall to turn the system on / off and switch between the different teaching points around the room

A teaching laboratory will provide the following functionality and audio visual capabilities:
- Large flat panel displays (60" to 65") as standard mounted directly to the wall
- Up to three audio video input location for connecting BYOD devices, teaching point and 2 other
- Ceiling speakers, wireless lapel microphone and hearing augmentation for audio reinforcement in the room

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)

OPTIONS		AUTHORISATION			
Upgrade Size of Flat Panel Display		**Total Price (With Options)**		**$**	**Ex GST**
Upgrade to a 75" Flat Panel Display from the standard 60" Flat Panel Display	$ TBA	Campus:		Precinct:	
Upgrade to a 80" Flat Panel Display from the standard 60" Flat Panel Display	$ TBA	Building:		Room Number:	
Upgrade to a 65" Interactive Flat Panel Display from the standard 60" Flat Panel	$ TBA	Requested By:		Date:	
		Authorised By:			
Wireless Presentation Via EDUROAM		Signature:		Date:	
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA	Authorised By			
		Signature:		Date:	

Pricing as of 01/10/15

All pricing is Exclusive of GST

Basic Large Teaching Space

A Basic Large Teaching Space is designed for tutorial or small lectures for up to sixty people in either a standard rowed seated environment or collaborative table environment. These spaces offer basic teaching technology that includes a projector and screen with the ability to plug in HDMI devices (BYOD).

Discrete flush mount ceiling or wall speakers are installed and are integrated into a hearing augmentation system for hearing impaired students, to reinforce the audio of devices.

The entire system is controlled via a button control panel that sits next to the screen that is used to turn the system on/off and switch the display between the input sources. The button touch panel is monitored remotely by ITS.

The basic large teaching space will provide the following functionality and audio visual capabilities:
- A projector with a 100" size projection surface
- A wall mounted whiteboard mounted alongside the projection surface
- Suitable speakers, and hearing augmentation for audio reinforcement in the room

Note, it is the responsibility of the presenter to provide any required dongle for the connection of their personal devices to the HDMI cable provided.

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)
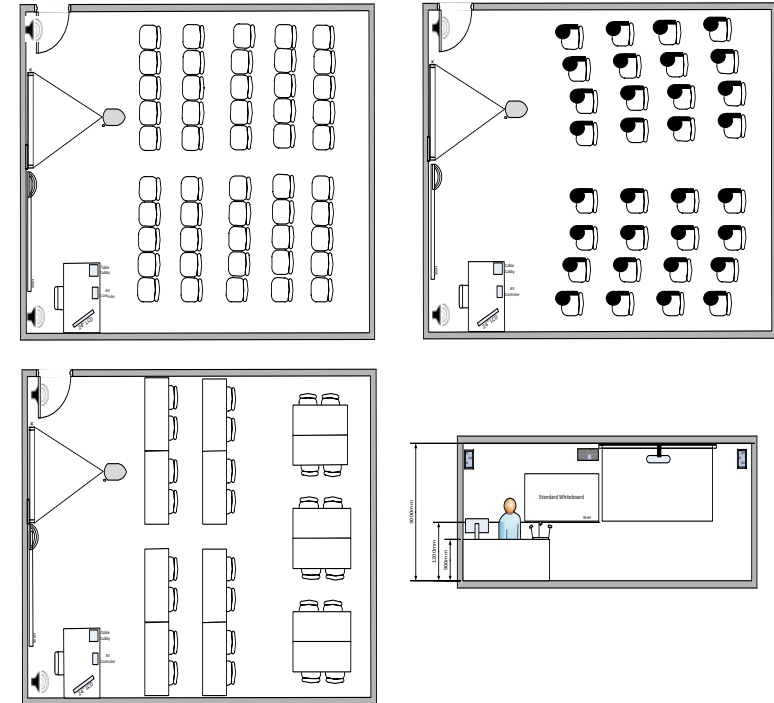
OPTIONS	
Wireless Presentation Via EDUROAM	
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA
Teaching Point Joinery	
Joinery unit at teaching point for presenter, incl. provision for AV equipment	$ TBA
Lecture Record	
The ability to record lectures and streaming capabilities	$ TBA

AUTHORISATION			
Total Price (With Options)		**$**	**Ex GST**
Campus:		Precinct:	
Building:		Room	
Requested By:		Date:	
Authorised By:			
Signature:		Date:	
Authorised By (ITS):			
Signature:		Date:	

Pricing as of 01/10/15

All pricing is Exclusive of GST

Basic Small Teaching Space

A Basic Small Teaching Space is designed for tutorial classrooms for up to twenty people in standard rowed seating, u-shape or a collaborative table environment. These spaces offer basic teaching technology that includes a flat panel display and the ability to plug in HDMI devices (BYOD).

The flat panel displays will include speakers that are integrated into a hearing augmentation system for hearing impaired students, to reinforce the audio of devices.

The entire system is controlled via a button control panel that sits next to the display that is used to turn the system on/off and switch the display between the input sources. The button touch panel is monitored remotely by ITS.

The basic small teaching space will provide the following functionality and audio visual capabilities:
- A 65" flat panel display
- A wall mounted whiteboard mounted alongside the projection surface
- Hearing augmentation for audio reinforcement in the room via the flat panel display speakers

Note, it is the responsibility of the presenter to provide any required dongle for the connection of their personal devices to the HDMI cable provided.
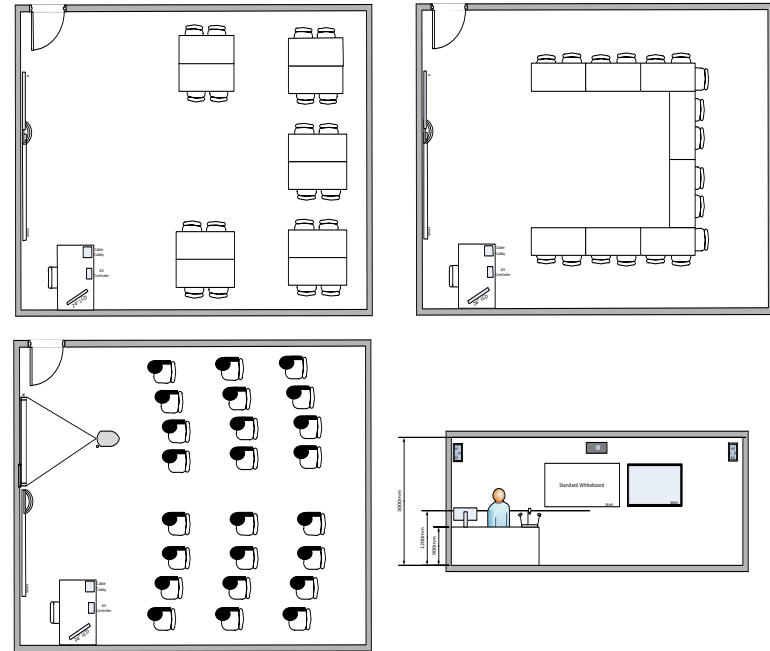
Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)

OPTIONS	Estimates Price Ex GST
Wireless Presentation Via EDUROAM	
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA
Upgrade LCD Display	
Upgrade from 65" LCD TV to 75" TV	$ TBA
Upgrade from 65" LCD TV to 80" TV	$ TBA
Teaching Point Joinery	
Joinery unit at teaching point for presenter, incl. provision for AV equipment	$ TBA

AUTHORISATION			
Total Price (With Options)		**$**	**Ex GST**
Campus:		Precinct:	
Building:		Room	
Requested By:		Date:	
Authorised By:			
Signature:		Date:	
Authorised By			
Signature:		Date:	

Pricing as of 01/10/15

All pricing is Exclusive of GST

Simulated Learning Unit

A simulated learning unit is a space designed to record the audio and video of a class room, with the ability to easily annotate and mark important events in the video that can then be reviewed by both student and lecturers later. These spaces generally contain several discrete cameras and microphones mounted within the ceiling connected to a server that records and manages the video and audio content. In some instances, other complex sources such as medical manikins can be incorporated into the system to provide additional feedback to students and lecturers. These spaces can be incorporated into a basic collaborative spaces for added functionality, in this case, the overall room design should be reviewed by ITS.

There are two products being used throughout the University in simulated learning units. Deciding between solutions should be discussed with ITS prior to making a decision as the technology is advancing rapidly and should be reviewed on a case-by-case basis. The two products currently within the University are MLS (Management Learning System), the enterprise solution, and SC (Studio Code) used by one school.

The entire system is controlled via a touch panel or dedicated PC that sits in the training room or within a purpose built monitoring control room. There is the option to upgrade these spaces for lecture record which maybe streamed live or played on demand. ITS can monitor these spaces and a small camera is installed to visually review the teaching space if required.

A simulated learning unit will provide the following functionality and audio visual capabilities:
- Several discretely mounted cameras and microphones to record sessions
- A dedicated propriety server for managing content

$ Costed by ITS at time of Install
(Includes Estimated Power Data $TBA)
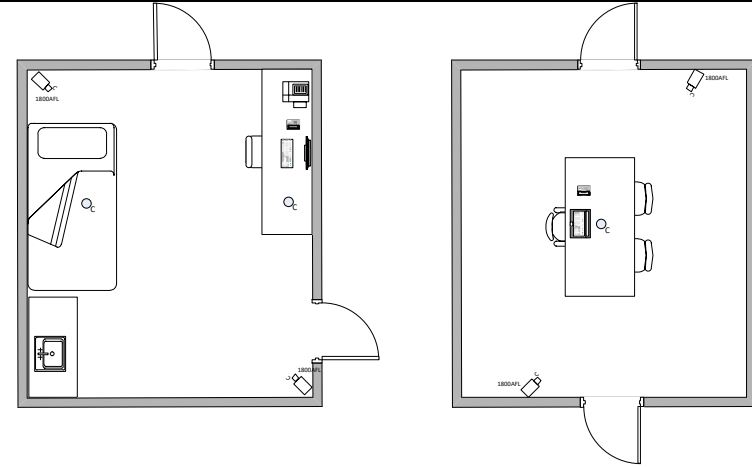
OPTIONS		AUTHORISATION			
Advanced manikins or other peripherals		**Total Price (With Options)**		$	**Ex**
Advanced feedback devices such as mannequins. To be determined	$ TBA				
by the school and reviewed by ITS		Campus:		Precinct:	
		Building:		Room	
Recording in progress visual aids		Requested By:		Date:	
Visible red light to indicate to participants the session is being recorded	$ TBA	Authorised By:			
		Signature:		Date:	
Dedicated device to mute cameras and microphones to remove privacy		Authorised By			
	$ TBA	Signature:		Date:	

Flipped Classroom Recording Studio

A Flipped Classroom Recording Studio is a space designed to pre-record audio and video for teaching and learning purposes. These spaces may be configured in a number of different configurations such as free standing, lectern and seated discussion mode.

The rooms are generally configured with one to two cameras which the user may select as there preferred option as well as position the camera to best suit their particular teaching style. Audio will be captured by way of wireless wearable microphones. As well as the camera video, multimedia content may be included as part of the recording in a smaller video window or as the main video window from either the presenters laptop or from a local Flinders desktop computer in the room.

Specialist lighting
- Recording light on the external of the room
- Sound dampening from the exterior of the room

The actual recordings are captured to a commercial Audio Video Recorder which records the content to the user's personal USB flash drive which may then be uploaded or further edited if required.

The entire system is controlled via a touch panel that sits in the recording studio. ITS may monitor these spaces by a small camera that is installed to visually review the space if required.

A Flipped Classroom Recording Studio will provide the following functionality and audio visual capabilities:
- Commercial grade recording system
- Multiple styles of teaching/presentation modes
- Ability to incorporate multimedia presentation into the recording
- Preview monitors for video confidence
- Studio style lighting for high quality video

Estimated Price$ TBA
(Includes Estimated Power Data $ TBA)
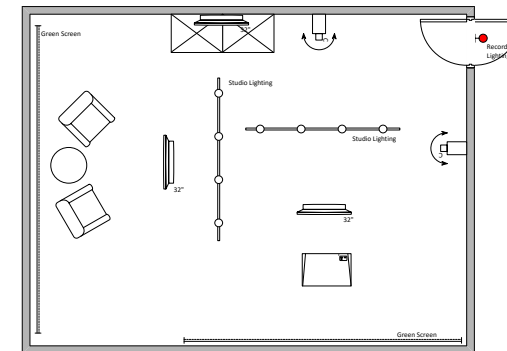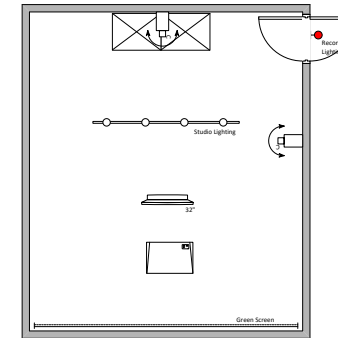
| OPTIONS	AUTHORISATION			
	Total Price (With Options)		**$**	**Ex**
	Campus:		Precinct:	
	Building:		Room	
	Requested By:		Date:	
	Authorised By:			
	Signature:		Date:	
	Authorised By			
	Signature:		Date:	

Standard AV Meeting Room / Executive Office

A standard meeting room is designed for smaller meeting room spaces and offices which seat between 4 and 12 people. The functionality of these spaces is for people to meet and share content on a large flat panel display, no smaller than 65", located around a boardroom or table. These rooms can share a BYOD input, such as a laptop, within the room and connect to the display via HDMI.   A button controller will be installed on the wall to one side of the display providing basic control such as turning the panel on/off and selecting between inputs.

The standard meeting room will provide the following functionality and audio visual capabilities:
- Minimum 65" flat panel display with integrated speakers mounted directly to the wall
- Wall mounted laptop input plate will be installed and terminated to the flat panel display
- Labelled button keypad for display control

Note, it is the responsibility of the presenter to provide any required dongle for the connection of their personal devices to the HDMI cable provided.

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)
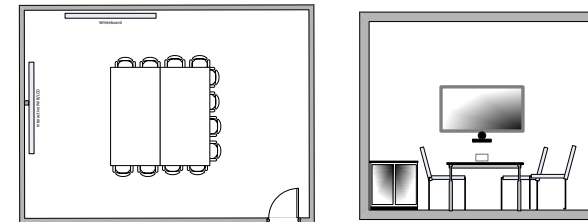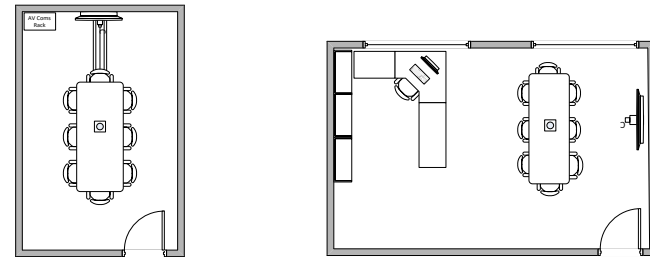
OPTIONS	
Upgrade Size Of Flat Panel Display	
Upgrade to a 75" Flat Panel Display from the standard 65" Flat Panel Display	$ TBA
Upgrade to a 80" Flat Panel Display from the standard 65" Flat Panel Display	$ TBA
Upgrade to a 65" Interactive Flat Panel Display from the standard 60" Flat Panel	$ TBA
Web Based Conferencing	
Web Based Conferencing from your personal laptop provides the ability to communicate with remote site via services such Cisco WebEx, Jabber, etc.	$ TBA
Web Based Conferencing includes the provision for:	
• USB Conferencing Camera positioned above/below the display	
• USB microphone/speaker on the table	
Optional Room PC for permanent connection to display	
An optional PC including joinery unit, wireless keyboard & mouse	$ TBA
Upgrade Display Controller	
Upgrade from hard button control to 7" touch screen controller	$ TBA
Wireless Presentation Via EDUROAM	
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA
Room Speakers	
Speakers for improved presentation audio	$ TBA

| AUTHORISATION				
Total Price (With Options)			**$**	**Ex GST**
Campus:		Precinct:		
Building:		Room		
Requested By:		Date:		
Authorised By:				
Signature:		Date:		
Authorised By				
Signature:		Date:		

Videoconferencing Meeting Room

A Videoconference Meeting Room is designed to provide a high quality video conferencing experience for participants using a fully integrated Cisco video conference unit. Dual flat panel displays of the same size, no smaller than 65", are used to represent near and far sites, but can also represent any content users are pushing through the video conference. Users from either site are able to share content from laptops with basic HDMI connections and can remotely control video cameras to optimise views. A touch panel will be installed in the room to provide basic control of the AV and the videoconference system with the option to control lighting, automated blinds, etc., where possible. Generally these spaces can be configured for groups as small as 4 and as large as 14. The touch panel is monitored remotely by ITS and a small camera is installed to visually review the teaching space.

Consideration needs to be made in relation to the room audio acoustics and lighting for the presentation and audience spaces. In some situations an acoustic and lighting engineer may need to be engaged to help draft potential structural changes to the space.

A videoconference room will provide the following functionality and audio visual capabilities:
- Dual large commercial grade (55" to 65") flat panel displays mounted directly to the wall
- A Cisco fully integrated video conference unit with table or ceiling microphones
- Touch panel control of all audio visual devices table or wall mounted
- Integrated speakers in the display with the option to upgrade to a higher quality speaker
- Detailed and well-designed seating and table solution
- Inclusion of mains power and data
- Joinery to house the AV equipment only
- Table box and cable management to the table

Estimated Price $ TBA
(Includes Estimated Power Data $ TBA)
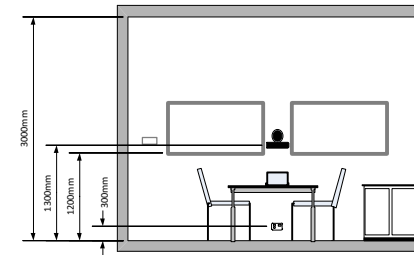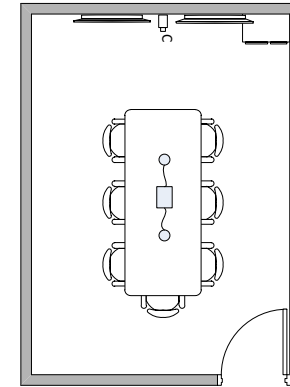
OPTIONS	
Upgrade Size of Flat Panel Display	
Upgrade to a 75" Flat Panel Display from the standard 65" Flat Panel Display	$ TBA
Wireless Presentation Via EDUROAM	
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA
Room Speaker	
Speakers for improved presentation audio	$ TBA

AUTHORISATION			
Total Price (With Options)		**$**	**Ex GST**
Campus:		Precinct:	
Building:		Room	
Requested By:		Date:	
Authorised By:			
Signature:		Date:	
Authorised By			
Signature:		Date:	

Pricing as of 01/10/15

All pricing is Exclusive of GST

Videoconferencing Immersive System

An Immersive VC Meeting Room is designed to provide a high quality video conferencing experience for participants using a fully integrated Cisco Immersive TX1310 Telepresence unit. The immersive hardware contains a video conference codec, a 65" flat panel display, in-built lighting, speakers and a triple camera cluster with voice activating switching. Users from either site are able to share content from laptops with basic HDMI connections available within the discrete cable cubbies on the table. Generally these spaces can be configured for groups as small as 4 and as large as 8. The telepresence unit contains built in remote control which may be monitored remotely by ITS for support.

Videoconferencing Immersive suites are used for standards based videoconferencing only, utilising videoconferencing hardware codecs to ensure the highest quality of service between connected end points. Immersive solutions cannot connect to web based conferencing such Skype, WebEx, etc.

Consideration needs to be made in relation to the room audio acoustics and lighting for the audience spaces. In some situations an acoustic and lighting engineer may need to be engaged to help draft potential structural changes to the space.

An immersive videoconference room will provide the following functionality and audio visual capabilities:

- Cisco Immersive TX1310 Telepresence unit
- Touch panel control mounted on table
- Detailed and well-designed seating and table solution

Estimated Price $ Costed by ITS at time of Install
(Includes Estimated Power Data $ Costed by ITS at time of Install)
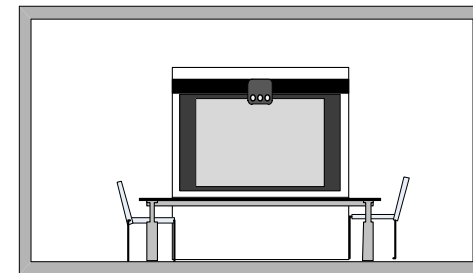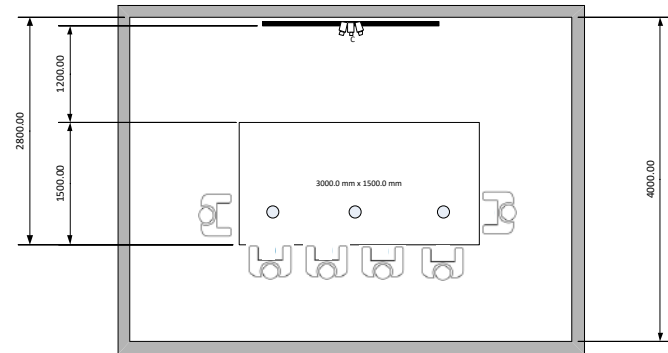
OPTIONS			AUTHORISATION			
Optional Second Flat Panel Display			**Total Price (With Options)**		**$**	**Ex**
Upgrade to include a 55" commercial flat panel display in addition to the standard display	$ TBA	□	Campus:		Precinct:	
			Building:		Room	
			Requested By:		Date:	
			Authorised By:			
			Signature:		Date:	
			Authorised By			
			Signature:		Date:	

Mo-CoW

A Mo-Cow (Mobile Computer on Wheels) is primarily designed as a mobile teaching space for practical delivery of content for small groups. Generally the Mo-Cows are designed for labs, group tables etc. where the trolley maybe moved to the end of a bench or in a group environment and plugged into mains power and a data point in the room.

The presenters or student may connect and display using their own devices (BYOD) via a HDMI and power provision or by an integrated PC located on the rear of the trolley. Audio re-enforcement from the system will generally be via speakers located on the display. The entire system is controlled via a physical button panel that is positioned on the upright to turn the system On /Off, select appropriate input, PC/Laptop, and volume control.

The Mo-CoW may also be configured with an optional USB microphone and camera for a mobile web based conferencing system.

A Mo-CoW will provide the following functionality and audio visual capabilities:
- Large flat panel displays (55" to 65") mounted to the trolley
- Laptop provision for connection of a BYOD device, i.e. laptop, tablet PC, etc.
- Flinders University standard MicroPC
- Web based video conferencing upgradeable
- AV Control from a simple button system mounted directly on the trolley
- Cable management on the rear of the trolley for easy transport

Estimated Price $ TBA
Power & Data Cabling $ N/R

OPTIONS		AUTHORISATION			
Web Based Conferencing		**Total Price (With Options)**		**$**	**Ex GST**
Web Based Conferencing provides the ability to conference with remote site via web based conferencing services such Cisco WebEx, Jabber, etc.	$ TBA				
		Campus:		Precinct:	
Web Based Conferencing includes the provision for:		Building:		Room	
• USB Conferencing Camera positioned above the display		Requested By:		Date:	
• USB microphone/speaker on the table		Authorised By:			
		Signature:		Date:	
Wireless Presentation Via EDUROAM		Authorised By			
Ability connect up to 4 BYOD wirelessly to the Flat Panel LCD Display	$ TBA	Signature:		Date:	

Pricing as of 01/10/15   All pricing is Exclusive of GST